

## ABSTRACT

A new MODU jacking system can reliably handle loads several times greater than can be currently handled, can be inexpensively designed and readily scaled for different jack-up loads, and can save millions of dollars in the manufacture of a single jack-up MODU. In the new MODU jacking system, a plurality of hydraulic continuous linear motion motors are engaged with a plurality of MODU supporting legs to provide relative motion between the MODU platform and its supporting legs, and to also maintain the MODU platform and MODU supporting legs locked in a stationary relationship. In the new jack-up system, the number of hydraulic piston/cylinder units and the number and design of the teeth that are engaged in providing relative motion may be selected to substantially reduce material stresses on the system.